

CLAIMS

1. An anti-idiotypic antibody which is capable of binding to a first antibody against a first antigen, characterized by comprising: a fused antigen including a substance which is capable of binding to an antigen-binding site of the first antibody and a second antigen, the substance being ligated to the second antigen; and a second antibody which is capable of binding to the second antigen.

2. An anti-idiotypic antibody according to claim 1, wherein the substance which is capable of binding to the antigen-binding site of the first antibody comprises an epitope of the first antigen.

3. An anti-idiotypic antibody according to claim 1 or 2, wherein the substance which is capable of binding to the antigen-binding site of the first antibody comprises a protein, a peptide, a carbohydrate, a lipid, a nucleic acid, or mixtures thereof.

4. An anti-idiotypic antibody according to any one of claims 1 to 3, wherein the substance which is capable of binding to the antigen-binding site of the first antibody is ligated to the second antigen via a spacer.

5. A method of producing an anti-idiotypic antibody which is capable of binding to a first antibody against a first antigen, characterized by comprising: preparing a substance which is capable of binding to an antigen-binding site of the first antibody; ligating the substance to a second antigen to produce a fused antigen; and attaching the fused antigen to a second antibody which is capable of binding to the second antigen.

6. A method of producing an anti-idiotypic antibody according to claim 5, wherein an epitope of the first antigen is prepared and the epitope is ligated to the second antigen.

7. A method of producing an anti-idiotypic antibody according to claim 5 or 6, wherein a protein, a peptide, a carbohydrate, a lipid, a nucleic acid, or mixtures thereof which is capable of binding to the antigen-binding site of the first antibody is prepared and ligated to the second antigen.

8. A method of producing an anti-idiotypic antibody according to any one of claims 5 to 7, wherein the substance which is capable of binding to the antigen-binding site of the first antibody is ligated to the second antigen via a spacer.

9. In a method of preparing an idiotype antibody, comprising:

inoculating an animal with an anti-idiotypic antibody against a specific idiotype antibody; and further inoculating the animal with an antigen of the idiotype antibody to prepare the idiotype antibody; the improvement comprising an anti-idiotypic antibody according to any one of claims 1 to 4 being used as the anti-idiotypic antibody.